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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,498	09/30/2003	Hyun-Ju Lee	CU-3333 VE	6055
26530	7590	06/07/2007	EXAMINER	
LADAS & PARRY LLP			KARLS, SHAY LYNN	
224 SOUTH MICHIGAN AVENUE				
SUITE 1600				
CHICAGO, IL 60604				
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/675,498	Applicant(s) LEE ET AL.	
	Examiner Shay L. Karls	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/1/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-4, 14 and 15 are rejected under 35 U.S.C. 102(a/e) as being anticipated by Oh (PGPub 20030167590).

With regards to claim 1, Oh teaches a vacuum with a brush (2), a driving motor (400) and a main body (1) for housing the driving motor and a filter mounting (100). There is a dust suction tube (8) having one end connected to the filter mounting and the other end connected to the brush (figure 3). There is a filter assembly (300) mounted within the filter mounting to filter out dust from external air drawn into the main body through the suction tube. The filter assembly comprises a filter housing having a top, a bottom and at least one side (not labeled on any of the figures however, it is best shown in figure 5, wherein the front is the portion is being shown, the bottom is the portion opposite the front). The filter housing has at least one filter unit (311). The filter housing having a safety lever (530) on the bottom of the filter housing. The lever protrudes outwardly from the at least one side of the filter housing if the at least one filter unit is not fully installed into the filter housing. Unless the cover is closed, the filter assembly will not fit within the filter mounting because the lever will be located rearward of the opening

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for receiving the lever. Once the cover is closed, the level will be aligned with the opening and the filter assembly can be mounted within the filter mounting and which prevents the filter assembly from being installed into the main body. There is a main body cover (320) coupled to the filter assembly to facilitate the insertion and removal of the filter assembly from the filter mounting. The cover is L-shaped, wherein part of the cover forms an outer surface of the bagless vacuum. The filter assembly is capable of locking to the main body (figures 6-7, element 500, 510, 520, 530).

With regards to claim 3, the filter housing includes and engagement loop (330).

With regards to claim 4, the filter housing further comprises an opening (322), through which external air flows into the housing.

With regards to claim 14, Oh teaches a vacuum with a brush (2), a driving motor (400) and a main body (1) for housing the driving motor and a filter mounting (100). There is a dust suction tube (8) having one end connected to the filter mounting and the other end connected to the brush (figure 3). There is a cyclone dust collector (10) provided in the dust suction tube. There is a filter assembly (300) mounted within the filter mounting and comprising a filter housing (310) and a first filter unit (311) locked in the filter housing. The filter housing has a safety lever (530) on the bottom of the filter housing. The lever protrudes outwardly from the at least one side of the filter housing if the at least one filter unit is not fully installed into the filter housing. Unless the cover is closed, the filter assembly will not fit within the filter mounting because the lever will be located rearward of the opening for receiving the lever. Once the cover is closed, the level will be aligned with the opening and the filter assembly can be mounted within the filter mounting and which prevents the filter assembly from being installed into the

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main body. There is a main body cover (320) coupled to the filter assembly. The main body cover is provided with a handle (330). The cover is L-shaped, wherein part of the cover forms an outer surface of the bagless vacuum. The filter assembly is capable of locking to the main body (figures 6-7, element 500, 510, 520, 530).

With regards to claim 15, the handle of the main body cover has a plurality of hooks (530), which can be locked into corresponding grooves (510, 520) on the main body (figures 6-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (PGPub 2003/0167590) as applied to claim 4, and further in view of Sykora (EP 0045036).

Oh teaches all the essential elements of the claimed invention as stated above however fail to teach that the filter housing further comprises an opening cover for covering the opening

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in the filter housing, wherein the cover is urged to a closed position by a spring, when the filter housing is removed from the bagless vacuum. Sykora teaches a vacuum cleaner with a cover (9) for covering an opening in the filter bag (7) when removed from the vacuum. The cover is pivotable and can be moved by spring force (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the filter housing of Oh so that it comprises an spring loaded cover as taught by Sykora so that the opening can be covered when removed from the vacuum (figure 1 shows the cover 9 being moved to cover the opening of the filter when removed from the vacuum). When removing the housing from the filter mounting the opening cover should cover the opening as quickly as possible to prevent dust from being released from the housing.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (PGPub 2003/0167590) as applied to claim 1 above, further in view of Ataka et al. (USPN 4426211).

Oh teaches all the essential elements of the claimed invention as stated above. Oh also teaches that the filter assembly (300) mounted within the filter mounting comprises a filter housing (310) and a first filter unit (311) locked in the filter housing (claim 7). Oh teaches all the element of the claimed invention however fails to teach using a second filter unit between the filter housing and the first filter wherein the second filter unit comprises a second filter and a second filter holder for supporting the second filter (claim 6). Ataka teaches a filter assembly with two filter units (8, 9) wherein the second filter unit has a second filter holder (plastic molding; col. 2, lines 25-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Oh's filter assembly so that it comprises a second filter

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unit, such as the one taught by Ataka because using two filters allows for various sized debris and dust to be captured and ensures that the dust passing through the vacuum will be captured by one of the filters (abstract of Ataka). One of skill in the art would readily recognize how to position a second filter unit easily within the filter housing of Oh.

Claims 8-10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (PGPub 2003/0167590) and Ataka et al. (USPN 4426211) and further in view of Tingle (USPN 6618898) as evidenced by Salo et al. (USPN 6341404).

Oh in view of Ataka teaches all the essential elements of the claimed invention as stated in the rejection to claims 1 and 6-7 above. Oh teaches an engagement loop (part of hinge 321 that is connected to the housing) on the filter housing. Additionally, there is a first hook means (part of hinge 321 that is connected to the cover) for engaging the engagement loop. Oh also teaches that the safety lever (530) can be inserted into a hole (520) in a sidewall of the filter housing when the filter housing is completely assembled (claim 10). The references fail to teach that the main body cover has a second and third hook means each of which are shaped and configured to engage the filter assembly (claim 8). The references also fail to teach a plurality of locking jaws, which engage second and third hooks (claim 13). Tingle teaches a means for connecting two parts. There are hooks (42) on one-part and lock jaws (38) on the other part. The hook and lock jaws keep the two elements secured together. While the engagement means of Tingle are not located on a filter housing or cover it is known in art to use engagement means on a filter housing and a filter cover to keep the parts together as evidenced by Salo. Salo teaches a vacuum cleaner with a main body comprising a filter housing (44) for receiving a filter (F). There is a filter housing cover (58). The cover is secured to the housing by means of

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bayonet locking means (60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Oh's filter assembly so that the main body cover latches on to the housing in a secure manner using hooks and lock jaws as taught by Tingle. Using the hooks and lock jaws as taught by Tingle on the filter apparatus of Oh, as evidenced by Salo, would allow the cover to be securely closed and locked into position during use (Salo: col. 5, lines 13-26, Tingle: col. 5, lines 36-38). Using hooks and lock jaws on the housing and cover would also prevent the cover from opening accidentally and spilling the contents when removing the apparatus from the filter mounting.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (PGPub 2003/0167590) in view Ataka et al. (USPN 4426211), Tingle (USPN 6618898) (as evidenced by Salo et al. (USPN 6341404)) as applied to claims 8 and 9 above, and further in view of Sykora (EP 0045036).

Oh, Ataka and Tingle (as evidenced by Salo) teach all the essential elements of the claimed invention as stated above however fail to teach that the filter housing further comprises a cover for covering the opening in the filter housing, wherein the cover is urged to a closed position by a spring, when the filter housing is removed from the bagless vacuum. Sykora teaches a vacuum cleaner with a cover (9) for covering an opening in the filter bag (7) when removed from the vacuum. The cover is pivotable and can be moved by spring force (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the filter housing of Oh so that it comprises an spring loaded cover as taught by Sykora so that the opening can be covered when removed from the vacuum (figure 1 shows the cover 9 being moved to cover the opening of the filter when removed from the vacuum). When

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removing the housing from the filter mounting the opening cover should cover the opening as quickly as possible to prevent dust from being released from the housing.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (PGPub 2003/0167590) as applied to claim 14 above, in view of Boles et al. (USPN 6598263).

Oh teaches all the essential elements of the claimed invention however fails to teach that the filter assembly includes support projection and a locker capable of holding a tool for cleaning one side of the filter. Boles teaches a filter assembly comprising a cleaning tool (170) for cleaning one side of the filter. The cleaning tool can be installed in the filter assembly by means of tabs, adhesives or other means (col. 5, lines 30-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Oh's invention with the cleaning tool as taught by Boles so that the filter will be kept clean and in turn the filter will receive and capture more dust particles.

Response to Arguments

Applicant's arguments, filed 4/27/07, with respect to Oh (USPN 6406505) have been fully considered and are persuasive. The rejections of Oh ('505) have been withdrawn.

Applicant's arguments filed 4/27/07, with respect to Oh (PGPub 20030167590) have been fully considered but they are not persuasive.

The applicant argues that Oh ('590) fails to teach a safety lever located on the bottom of the housing. The terminology "bottom" and "top" are relative terms. These terms do not distinguish what the top is or what the bottom is. Therefore, any of the sides on Oh's housing could be considered the top or the bottom depending on how the filter housing is being looked at.

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Additionally, the applicant argues that the Oh ('590) reference fails to teach a filter housing with a safety lever that does not project outwardly when the filter unit is installed properly into the filter housing. This limitation is not claimed. The claim only states that the lever protrudes outwardly when the filter unit is not fully installed into the filter housing and prevents the filter assembly from being installed into the main body. This is exactly what the safety lever of Oh ('590) does. The claims fails to teach that the safety lever retracts inward when the filter unit is installed correctly and projected outwardly *only* when the filter is not installed properly. The broadest reasonable interpretation of the claim is that lever will protrude outwardly if the filter unit is not installed corrected and will prevent the filter from being installed into the main body; however, the lever may still protrude outwardly even after the filter unit is installed correctly but it will not prevent the filter from being installed into the main body. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

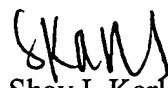
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Shay L Karls
Patent Examiner
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